

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

THE PNC FINANCIAL SERVICES GROUP,)
INC.,)
)
Plaintiff,)
) 2:20-cv-1977
)
v.)
PLAID INC.,)
)
Defendant.)

OPINION

Mark R. Hornak, Chief United States District Judge

I. INTRODUCTION

Before the Court are eight separate *Daubert* Motions involving eight of the nine prospective expert witnesses in this case.¹

Defendant Plaid, Inc. (“Plaid”) seeks to exclude the testimony of all four of Plaintiff PNC Financial Services Group’s (“PNC’s”) experts, in whole or in material part: (1) Dr. Ran Kivetz (ECF No. 244)²; (2) Mr. Charles Lundelius (ECF No. 247); (3) Dr. Gregory Carpenter (ECF No. 253); and (4) Mr. Todd Renner (ECF No. 250).

¹ The parties have now submitted their Motions in Limine as to which briefing is on-going. Some of those Motions strike the Court as being somewhat dressed up second bites at the *Daubert* apple by each party. While the parties revisiting (or raising) matters briefed and argued (or which could have been) weeks ago is disfavored by the Court; nonetheless, the rulings set out in this Opinion are based on the record as presented at the argument on the *Daubert* Motions, and the admissibility of the expert testimony discussed in this Opinion may be revisited by the Court if necessary as it resolves the Motions in Limine.

² Dr. Kivetz has a rebuttal report that is not subject to a *Daubert* challenge. (ECF No. 326 at 1).

PNC seeks to exclude the testimony of four of five of Plaid's experts, in whole or in part: (1) Dr. Ravi Dhar (ECF No. 235); (2) Dr. Maureen Chakraborty (ECF No. 239); (3) Dr. Dominique Hanssens (ECF No. 232); and (4) Mr. Jason Chan (ECF No. 234).³

II. BACKGROUND

Plaintiff PNC is a large, diversified financial institution. Defendant Plaid essentially operates as a third-party software broker. (ECF No. 47 ¶ 22). Plaid connects cash payment and investment account applications ("fintech apps")—such as Venmo, Robinhood, Coinbase, etc.—with a user's banks, thus enabling the user to input the username and password affiliated with their bank account to create the connection between the user's bank and the given fintech app that the user was then utilizing. (ECF No. 245 at 7–8). This connection then enables the subsequent transfer of money (said transfer can be, but usually is not, contemporaneous with the establishment of the connection) between the fintech app and the user's bank and vice versa.

PNC alleges that Plaid's software violated federal and state trademark laws. (*Id.* ¶¶ 22–24). PNC says that "Plaid replicated the authentic PNC log-on screen in order to intentionally mislead consumers into believing that they are providing their private and sensitive information to PNC or to an entity affiliated with PNC in order to overcome the otherwise present and reasonable apprehension to providing financial information to an unknown third-party." (*Id.* ¶ 29). PNC then says that by having users give their information to Plaid rather than directly to PNC, Plaid was able to collect data from consumers' accounts. (*Id.* ¶ 26). Specifically, PNC alleges that Plaid's software, as it then existed at the time the events giving rise to this action occurred, (1) attempted

³ Plaid has proffered a report from a Dr. Nancy Mathiowetz that is not subject to a *Daubert* challenge. (ECF No. 327 at 1). That means that each party seeks to knock out the testimony of every expert witness advanced by their adversary, save that one.

to bypass PNC’s authentication process by having users give their PNC log-in information to Plaid, rather than directly to PNC; and (2) had a user interface for bypassing PNC’s authentication process that infringed on PNC’s marks and logos. (*Id.*; *see id.* at 12–13 for a visualization of what this looks like in practice). PNC’s claims in this action arise out of the allegedly infringing use of its marks.

According to Plaid, its use of PNC’s marks did not present any difficulties, at least at first. That is, the two had an ongoing working relationship that did not become hostile until a 2019 Cybersecurity Event whereby a third-party actor or actors gleaned PNC customer information that had been obtained by Plaid via Plaid Link (“2019 Cybersecurity Event”), which led to PNC consumer account information being leaked on the “Dark Web.” PNC blames Plaid for that event, and its occurrence signaled the end of the companies’ working relationship.

PNC alleges that Plaid’s wrongful actions did not cease after PNC implemented new security measures to disable Plaid’s “linking” mechanism as to its customers in 2019 as a response to the Cybersecurity Event. (*Id.* ¶ 32). Instead, it says that Plaid then presented users with messaging screens clad in PNC branding that said, “we’re currently experiencing connectivity issues with this bank” and “PNC has made a change that prevents you from being able to link your accounts.” (*Id.*). One of Plaid’s allegedly PNC-looking screens also provided users a link to the federal Consumer Financial Protection Bureau’s (“CFPB”) website, which PNC says that—with Plaid’s encouragement—led to PNC users filing complaints against PNC. (*Id.* ¶ 34). PNC also asserts that Plaid told PNC customers affected by this de-linking to change banks.

PNC also asserts that, in November 2020, when Plaid introduced a new user interface, Plaid continued to infringe on PNC’s marks, albeit in a less blatant fashion. (*Id.* ¶ 42).

In response, PNC alleges six (6) causes of action: (1) Federal Trademark Counterfeiting under 15 U.S.C. §§ 1114(1)(b), 1116(d); (2) Federal Trademark Infringement under Section 32(a) of the Lanham Act, 15 U.S.C. § 1114(1); (3) Federal Trademark Infringement, False Designation of Origin, and Unfair Competition under Section 43(a)(1)(A) of the Lanham Act, 15 U.S.C. § 1125(a)(1)(A); (4) False Advertising under Section 43(a)(1)(B) of the Lanham Act, 15 U.S.C. § 1125(a)(1)(B); (5) Unfair Competition and Unfair or Deceptive Acts or Practices under 73 P.S. § 201-1, *et seq.*; and (6) Trademark Infringement, Unfair Competition, False Designation of Origin, and Misappropriation under Pennsylvania Common Law.

Notably, though PNC spends a great deal of the narrative sections of its briefing explaining how Plaid's alleged acts led to Plaid collecting PNC user account information which led to Plaid using that data to "auto populate" secure log-in credentials of PNC customers, which in turn allegedly caused harm to PNC when the 2019 Cybersecurity Event occurred, none of the counts alleged by PNC against Plaid reference that as actionable misconduct. More precisely, there are no conversion or theft counts, and no claims based on Plaid's asserted collection, retention, use, or transfer of PNC customer information. This is a counterfeiting, trademark infringement, unfair competition, and false advertising case only.

III. LEGAL STANDARD

The admissibility of expert testimony is governed by Federal Rule of Evidence (FRE) 702 and *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). Under FRE 702, opinion testimony by a qualified expert is admissible if (1) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or determine a fact in issue; (2) the testimony is based on sufficient facts or data; (3) the is the product of reliable

principles and methods; and (4) the witness has applied the principles and methods reliably to the facts of the case.

Put in more colloquial terms, FRE 702 embodies a trilogy of restrictions on expert testimony: (1) qualification; (2) reliability; and (3) fit. *Schneider v. Fried*, 320 F.3d 396, 404 (3d Cir. 2003) (citing *Daubert*, 509 U.S. 579). That is, (1) the expert must have the specialized expertise necessary to assist the trier of fact, (2) the testimony that the expert offers must be based on the methods and procedures of science (rather than subjective belief or unsupported speculation), and (3) the testimony that the expert offers must “fit” the issues in the case.

When a district court conducts a *Daubert* hearing and rules on *Daubert* motions by applying the above principles to the proffered expert opinions, it “acts as a gatekeeper, preventing opinion testimony that does not meet the requirements of qualification, reliability[,] and fit from reaching the jury.” *Schneider*, 320 F.3d at 404 (citation omitted); *UGI Sunbury LLC v. A Permanent Easement for 1.7575 Acres*, 949 F.3d 825, 832–33 (3d Cir. 2020). Though the FRE “embody a strong preference for admitting any evidence that may assist the trier of fact,” and “Rule 702 . . . has a liberal policy of admissibility,” *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008) (quoting *Kannankeril v. Terminix Int'l, Inc.*, 128 F.3d 802, 806 (3d Cir. 1997)), the burden of proof under FRE 702 is on the proponent of the expert testimony, not the party moving to exclude that testimony, to establish the admissibility of that testimony by a preponderance of the evidence. *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 743–44 (3d Cir. 1994)

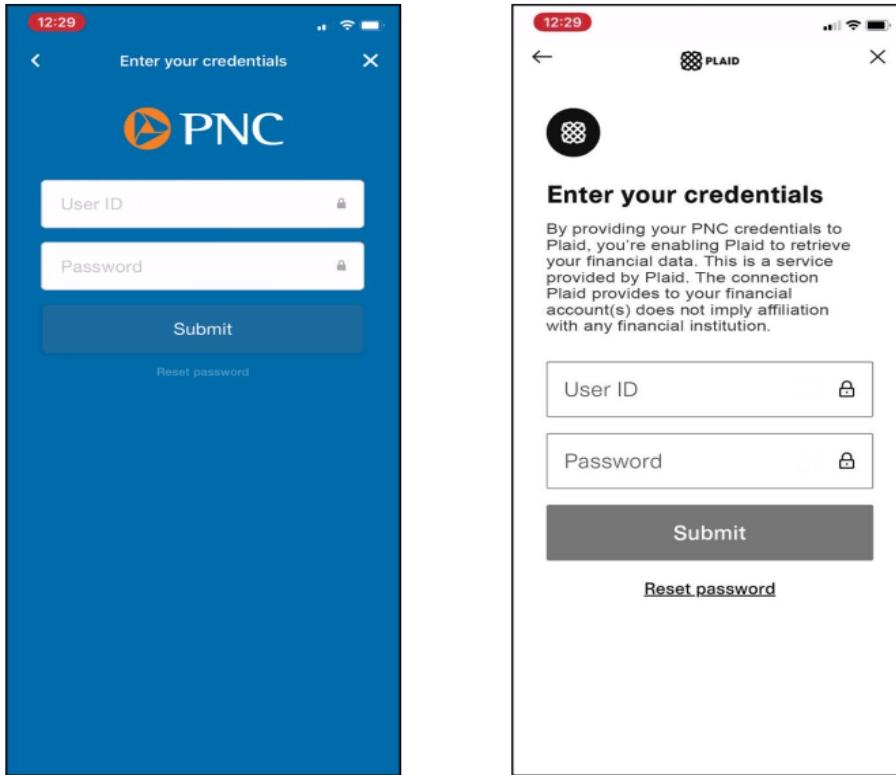
IV. LIKELIHOOD OF CONFUSION EXPERTS: KIVETZ AND DHAR

a. Dr. Ran Kivetz

Dr. Ran Kivetz is PNC’s expert on likelihood of confusion. Kivetz conducted two surveys that sought to measure whether consumers were likely confused by the presence of what appeared to be PNC’s marks on some of Plaid’s user interfaces. (ECF No. 245 at 9). Those surveys are substantially similar, and the Court refers to Dr. Kivetz’s surveys herein as “the survey.”

The survey began by showing respondents a 22-second video clip simulating the user flow within fintech app Venmo from 2019. (ECF No. 326-1 at 17–18). The video presented the Venmo home screen that an already-registered Venmo user would see when they opened the app and then showed a cursor moving between the Venmo screens. After the video, survey respondents were shown a series of static screens that a consumer would see when connecting a bank account to their Venmo account, including the Plaid Link consent, institution select, and credentials panes. There were limited interactive elements on the screens.

The test group for this survey was shown the Plaid user interface that allegedly appropriated PNC’s marks. (*Id.* at 18). The control group was shown a screen that can best be described as a workup of what a “Plaid branding only” user interface would look like. (*Id.*). The former is on the left below, the latter on the right:



After the video ended, consumers were asked a series of questions that were designed to learn more about whether they were confused by the marks shown on their respective screens. Those questions included “which company provides this credentials screen,” “does the company that provides this credential screen have a business affiliation or connection with another company or companies,” “with which other company or companies does the company that provides this credentials screen have a business affiliation or business connection,” and “did . . . the company that provides this credentials screen receive approval or sponsorship from another company or companies?” (*Id.* at 46–52).

Based on this methodology, Dr. Kivetz concluded that 79% of the participants in the test group were confused into believing that the company that provides that credentials screen either (1) was PNC (75%); (2) has a business affiliation or connection with PNC (5.9%); and (3) received

approval or sponsorship from PNC (5.4%). (*Id.* at 59–60). In contrast, participants in the control group experienced a confusion rate of 38.1%. (*Id.*). The net confusion rate (the difference between the two confusion rates) was 41.3%. (ECF No. 304 at 12 n.8).

Plaid argues that Dr. Kivetz’s opinion testimony should be excluded because (1) it’s unreliable due to a faulty control; (2) the survey used a video rather than an interactive process; and (3) both the relevant population and survey sample were tainted by not limiting the survey to existing PNC customers. Plaid separately argues that Dr. Kivetz’s opinion regarding brand tarnishment should be excluded because no trademark dilution claim is being pursued. (ECF No. 245 at 19).

“Survey evidence is generally admissible in cases alleging trademark infringement under the Lanham Act.” *Malletier v. Dooney & Bourke, Inc.*, 525 F. Supp. 2d 558, 580 (S.D.N.Y. 2007) (citing *Schering Corp. v. Pfizer Inc.*, 189 F.3d 218, 227–28 (2d Cir. 1999)). Factors to be considered when evaluating the admissibility of survey evidence include whether:

1. The universe was properly chosen and defined;
2. The sample chosen was representative of that universe;
3. The questions asked of the interviewees were framed in a clear, precise and nonleading manner;
4. Sound interview procedures were followed by competent interviewers who had no knowledge of the litigation or the purpose for which the survey was conducted;
5. The data gathered were accurately reported;
6. The data were analyzed in accordance with accepted statistical principles; and
7. Objectivity of the entire process was assured.

Citizen Fin. Grp., Inc. v. Citizens Nat. Bank of Evans City, No. CIV.A. 01-1524, 2003 WL 24010950, at *3 (W.D. Pa. Apr. 23, 2003), *aff’d sub nom. Citizens Fin. Grp., Inc. v. Citizens Nat.*

Bank of Evans City, 383 F.3d 110 (3d Cir. 2004) (citation omitted); *see also Malletier*, 525 F. Supp. 2d at 580.

Starting with a broader level of generality and working inward, there is no opinion-excluding issue with the relevant population and corresponding sample of participants including persons who were not existing PNC customers. Dr. Kivetz designed his survey to include potential PNC customers by asking potential respondents whether they engage in online banking and geographically limiting the population to states in which PNC had a physical branch location. (ECF No. 304 at 17). Further, even Plaid recognizes that the proper population in a likelihood of confusion case includes “*potential buyers of the junior user’s goods or service.*” (ECF No. 245 at 17) (citation omitted and emphasis added). By including persons who engage in online banking in a state in which PNC had a physical location, Dr. Kivetz rationally used a population that included potential users without going too far.

An error in designing the population has to have an effect on the substance of the survey to indicate unreliability, and the effect of an allegedly tainted population in this case is speculative, as the question is whether the average consumer who connects a bank account to cash payment and investment account fintech applications would be confused by the use of a given set of marks (PNC’s) on Plaid’s user interface(s) during the connection process. The inclusion of people who may potentially bank with PNC does not impermissibly affect that. Though “[o]ne could perhaps argue that” Dr. Kivetz should have made his sample more limited, his sample of potential PNC customers “is not so skewed that it makes the survey unreliable as to be inadmissible.” *Navarro v. Procter & Gamble Co.*, 501 F. Supp. 3d 482, 500 (S.D. Ohio 2020). Put more bluntly, “[t]his is not the rare case where the surveyed population is so off target that the survey becomes unreliable.” *Id.*

As for the static visual rather than dynamic interactive design of the survey, the goal of the survey was to show respondents the entire linking process, from start to finish. If Dr. Kivetz designed an interactive survey, respondents may not have been able to walk through the entire linking process. Respondents may have stopped at an early stage and such respondents would not have reached the final user interface screen (the credentials screen), the one that so closely mimics PNC's marks (or so PNC argues). Alternatively, respondents may have reached and/or tried to reach a different bank's credentials login screen, which Plaid would have no doubt then objected to on the basis of fit. *See Easy Spirit, LLC v. Skechers U.S.A., Inc.*, 571 F. Supp. 3d 185, 209 (S.D.N.Y. 2021) (expressing concern with the notion that that a third-party website should have been included in a survey to more closely mimic the actual user experience because such “would inappropriately introduce another brand to the question of confusion”).

Further, Plaid’s arguments regarding the static design of the survey are abated by two features of the survey. First, respondents were told, at each step of the process, what interactions with Plaid’s software they actually would have had in the real world. (E.g., ECF No. 326-1 at 34–40). Dr. Kivetz’s survey did not just rush respondents through all of Plaid Link’s various screens. Second, respondents were able to interact with certain aspects of the survey. Respondents were able to click on and read the Plaid privacy policy before progressing beyond the Plaid consent screen. (*Id.* at 38, 41). Thus, in at least two key respects, Dr. Kivetz’s survey utilized measures designed to counteract its static nature, and such cuts against Plaid’s argument that the static nature of the survey inherently renders such unreliable.

Plaid’s arguments necessarily imply that some respondents may not have reached the allegedly infringing screens at issue in this case. The prospect of measuring confusion with a portion of respondents not reaching the PNC credentials login screen, the very same screen that is

featured in the Amended Complaint, is unworkable. That respondents could not fully interact with the interface in a dynamic fashion makes the overlap between the survey and the “real world” imperfect, but here, the restriction on interactivity was a necessary component of a reliable survey. The important thing was for respondents to see the relevant user experience. Dr. Kivetz’s design accomplished that.

On its face, Plaid’s argument about the faulty control group design is the most colorable of its objections: the screen that control group participants were presented with deviated fairly substantially from the allegedly unlawful institutional and credentials login screens that featured PNC’s marks. (ECF No. 245 at 10). More specifically, that screen displayed a disclaimer that was not present in the Plaid Link user interface, at least at the later stages of a consumer’s interactions with Plaid Link. As Plaid tells it, given that the goal of any experiment is to isolate causation, a substantial deviation in the control could reasonably be characterized as so visually different (and perhaps, so obviously affiliated with Plaid) from the PNC institutional and credentials login screens that it diluted the confusion results on that side of the survey.

But Dr. Kivetz did not design the screen that control group participants saw out of the blue. The design of the control group credentials login screen is visually similar (but not identical) to the credentials screen that Plaid uses today. Plaid’s own name and logo were inserted, with black and white colors to match the logo. The control group therefore had to have some marks indicating Plaid’s dominion over that screen. Whether those changes are too far-reaching goes to the weight of the evidence, not reliability. The control group credentials login screen is not so erroneously designed so as to render the results unreliable.

Plaid’s last and loudest objection to Dr. Kivetz’s survey is that the inclusion of a disclaimer into the control screen rendered the survey unreliable. At least on its own, a poor choice of control “is not dispositive of admissibility.” *Malletier*, 525 F. Supp. 2d at 596; *Spangler Candy Co. v. Tootsie Roll Indus., LLC*, 372 F. Supp. 3d 588, 598–99 (N.D. Ohio 2019) (declining to exclude survey evidence where the control subject had “blatantly obvious differences” from the test subject). Here, the design of the control group did not appear to depress confusion responses in the control group; indeed, what could be found to be a perhaps surprising 38% of control group respondents were still confused, notwithstanding the presence of the disclaimer in the control user interface.

Plaid argues that the presence of the disclaimer led survey respondents “away from PNC,” but the actual findings of the survey indicated that nearly two of every five respondents were confused even with a control that contained that disclaimer. Such undermines the assertion that the control was so flawed that it tainted the confusion responses from survey participants. And that the disclaimer was sourced from post-2020 Plaid screens only cuts against Plaid’s argument that the control screen did not adequately replicate marketplace conditions. (ECF No. 326-1 at 56–57). While Plaid is correct that the control could have been a closer replica to the actual Plaid user interface, such does not mandate exclusion. *Gucci Am., Inc. v. Guess?, Inc.*, 831 F. Supp. 2d 723, 740 (S.D.N.Y. 2011), *on reconsideration in part*, 2011 WL 6326032 (S.D.N.Y. Dec. 16, 2011) (“[W]hile the fact that a survey used a control that could have been ‘stronger’ or ‘better’ may mean it is entitled to less weight, it does not mean that the survey does not provide relevant information.”).

Further, given the other factors the Court is to consider when evaluating the admissibility of a survey—the universe, the sample, the design of the questions, the other statistical methods—

the inclusion of a disclaimer in the control screen, one similar to disclaimers Plaid still uses today, does not render this survey unreliable. Plaid of course may cross examine Dr. Kivetz about his choice to include a disclaimer in the control, and such may prove to be persuasive to the jury, but this is a matter of the survey's evidentiary weight, not its admissibility, even under FRE 702's current and more demanding iteration. Therefore, Dr. Kivetz's likelihood of confusion opinion based on his consumer survey is admissible, and PNC has carried its burden for admissibility under FRE 702 as to his testimony on the issue of likelihood of confusion.

Plaid separately argues that Dr. Kivetz's "tarnishment" opinion should be excluded. Dr. Kivetz opines that, because of the high net confusion rate finding in his survey, consumers were likely to associate PNC with Plaid, and any bad acts by Plaid would therefore tarnish PNC's reputation. (ECF No. 326-1 ¶ 135). PNC argues that Dr. Kivetz is referencing tarnishment in its academic sense, not its legal sense, and his opinion as to such should be admitted on that basis. Plaid has the better of the argument on this point.

Dr. Kivetz's opinion on this point appears essentially gratuitous and is reliant on a series of suppositions that are not in the record about any link or connection between (1) undefined and unstated "bad acts" by Plaid and (2) PNC and its brand. In the Court's judgment, it rests on several layers of undifferentiated speculation, rather than informed expert analysis. This portion of Dr. Kivetz's opinion does not "fit" the case and does not demonstrate a basis relying on reliable processes or analysis and will be excluded on those grounds. Beyond that, for the same reasons, Dr. Kivetz's tarnishment opinion presents a substantial likelihood of confusion for the jury such that—no matter any limiting instruction—the risk of unfair prejudice presented by the tarnishment opinion substantially outweighs any probative value. Thus, FRE 403 also counsels for exclusion

of that opinion. In summary, Dr. Kivetz's likelihood of confusion opinion is admissible, but his tarnishment opinion is not.

b. Dr. Ravi Dhar

Dr. Ravi Dhar is Plaid's customer confusion expert, and his testimony in this case is the primary vehicle through which Plaid aims to rebut Dr. Kivetz's expert report. To determine whether users would be confused by Plaid's use of PNC's marks, Dr. Dhar utilized the "consumer journey approach." (ECF No. 294 at 6).

The consumer journey approach is designed to mimic what users would be seeing when deciding whether to "consume" (buy or utilize) a given product or service. The goal is to place the person conducting the analysis (and by extension, their readers) in the shoes of the consumer within the context of the specific marketplace at issue. In layman's terms, Dr. Dhar walks through what a consumer would have seen prior to using Plaid to link their investment fintech account with their bank account. (*E.g.*, ECF No. 327-1 at 21, 23). The "journeys" that Dr. Dhar undertook shared a common feature: users were, at some point in the journey, presented with a "consent pane" within the given host app that explained Plaid's role and how Plaid was used to connect users with their bank accounts from the given host app. (*Id.* at 19, 21, 24). Because some of those applications, since 2015, have had consent panes that describe Plaid and its role in linking those applications to the users' bank accounts that pop up for users prior to the allegedly unlawful use of PNC's marks (or those of any other bank), Dr. Dhar opines that users were unlikely to be confused by Plaid's use of PNC's marks, especially given consumers' ultimate goal of connecting their bank accounts to a given fintech app. (*Id.* at 29).

Separately, in support of his opinion stating that any consumer confusion was not material to the entry of banking credentials in Plaid Link, Dr. Dhar reviewed internal Plaid testing, which purportedly shows that the effect of the usage of bank marks on the institutional login and credentials login screens had minimal impact on consumer conversion (that is, minimal effect on whether consumers entered their banking information into the fintech app via Plaid Link).

PNC first argues that the Court should exclude Dr. Dhar's likelihood of confusion opinion because of unreliability and because Dr. Dhar's expression of this opinion usurps the role of the jury.

PNC's argument on the unreliability point essentially boils down to Dr. Dhar's lack of a consumer survey. Such bypasses the reality that his report does not merely present the screens that users would encounter when navigating a fintech app such as Robinhood or Venmo. Rather, his report provided context for the "consumer journey" within the greater world of fintech apps. (ECF No. 327-1 at 15–17). That is, Dr. Dhar opines that by the time a given user encountered a Plaid Link screen within a fintech app, the decisions to (1) download the app, (2) use it, and (3) link a bank account were likely already made. Given this broader context, Dr. Dhar says that Plaid's use of PNC's marks was not likely to confuse consumers. His likelihood of confusion opinion also contains evaluations of Plaid consent panes presented to some users in some fintech apps during the period in which Plaid allegedly infringed on PNC's marks. (*Id.* at 25). The display of consent screens in select apps, per Dr. Dhar, further reinforces the notion that the average consumer, taking their "journey" through a given fintech app, was not likely to be confused in this instance. In conducting this analysis of the broader universe presented to consumers, Dr. Dhar utilized his personal experience as an expert in consumer behavior and consumer psychology (*id.* ¶ 6) and

applied principles from those fields to the broader consumer context in reaching his likelihood of confusion opinion. (*Id.* 14–16).

While an expert’s application of their own experience and of principles in the field may not be as empirically rigorous as an experiment or a survey, FRE 702 does not bar the admission of more “qualitative” expert testimony. Nor is Dr. Dhar’s methodology so novel or the equivalent of the pseudoscience that FRE 702 is aimed as screening out of federal trials. As Plaid notes in its Brief in Opposition to this Motion, the consumer journey approach is well recognized in the consumer behavior field of study. (ECF No. 294 at 8 (citing Rebecca Hamilton & Linda L. Price, *Consumer Journeys: Developing Consumer-Based Strategy*, 47 J. Acad. Mktg. Science 187 (2019)). Consideration of the “journeys” that consumers take and their given goals in taking those journeys as part of an evaluation of the effect of a given product on consumer psychology is not uncommon in this field. See e.g., Andrea Micheaux & Birgit Bosio, *Customer Journey Mapping as a New Way to Teach Data-Driven Marketing as a Service*, 41 J. Mktg. Educ. 127 (2019); Asbjørn Følstad & Knut Kvale, *Consumer Journeys: A Systematic Literature Review*, 28 J. Serv. Theory and Prac. 196 (2018). The plethora of professional literature on this topic as advanced by Plaid demonstrates that the consumer journey approach is based on “methods and procedures of science,” has been peer reviewed, and is accepted in the field. *Merisant Co. v. McNeil Nutritionals, LLC*, 242 F.R.D. 315, 318 (E.D. Pa. 2007) (citations and internal marks omitted). After adding Dr. Dhar’s experience in studying consumer behavior and consumer psychology to those factors, *id.*, it is plain that his utilization of the consumer journey approach is appropriate, at least as to this case.

As to PNC’s contention that Dr. Dhar’s likelihood of confusion opinion would usurp the role of the jury by inappropriately telling the jury to reach a certain conclusion, such misconstrues

Dhar's report. While Dr. Dhar is not permitted to testify in a conclusionary manner as to whether there is or is not, in fact, a likelihood of confusion, "expert testimony on the factual factors that go into the ultimate finding on the confusion issue is generally quite proper and helpful to both judge and jury." 3 J. Thomas McCarthy, *McCarthy on Trademarks and Unfair Competition* § 23:2.75 (5th ed. 2024).

That is, Dr. Dhar will not be permitted to testify as to whether, in his opinion, he believes that Plaid Link was likely to cause consumer confusion because such would go to consumer state of mind, and neither his study nor Plaid's internal studies thoroughly probe that subject in the manner generally required in trademark cases. *See McCarthy on Trademarks and Unfair Competition*, § 23:2.75 ("The reason that such testimony is usually not proper is *not* that the witness is testifying as to a conclusion of law, but that the witness has no expertise and no factual basis to opine as to the probable state of mind of customers when presented with the conflicting marks. A survey expert has conducted a scientific test and asked questions of potential buyers: other experts have not."). However, Dr. Dhar may testify as an expert about how the considerations outlined in his report impact the applicable *Lapp* factors, e.g., the care consumers take in using fintech apps and Plaid Link and/or the relationship of Plaid Link and PNC in the minds of consumers.⁴ *Interpace Corp. v. Lapp, Inc.*, 721 F.2d 460, 463 (3d Cir. 1983); *McCarthy on Trademarks and Unfair Competition*, § 23:2.75 ("Every federal circuit has its own list of about eight factors to be weighed and balanced before reaching the ultimate conclusion as to whether confusion is or is not likely. It is entirely proper and relevant for a qualified expert witness to opine as to these subsidiary factual questions.").

⁴ Plaid confirms that "Dr. Dhar does not intend to testify to any ultimate conclusion regarding likelihood of confusion." (ECF No. 294 at 10).

Next, PNC argues that Dr. Dhar's materiality opinion should be excluded. PNC says that (1) the internal Plaid surveys Dr. Dhar reviewed in reaching his opinions were unreliable; and (2) Plaid's internal tests do not fit this case.⁵

While the burden is on Plaid to demonstrate that Dr. Dhar's consideration of its internal tests was a reliable method, that burden is somewhat deferential: "If the data underlying the expert's opinion are so unreliable that no reasonable expert could base an opinion on them, the opinion resting on that data must be excluded." *In re TMI Litig.*, 193 F.3d 613, 697 (3rd Cir. 1999). The record, however, demonstrates that Plaid has met this burden as to Dr. Dhar's materiality opinion: Plaid ran a series of internal tests and studies that addressed the impact of Plaid's use of bank logos in its user interface, and the notion that the data were unreliable solely because the data came from Plaid is inaccurate. (ECF No. 294 at 13). "Experts routinely rely on the work of others," *City of St. Petersburg v. Total Containment, Inc.*, No. 06-cv-20953, 2009 WL 3335013, at *4 (S.D. Fla. Mar. 19, 2009), so long as the work done by others "is of a type that is reasonably relied upon by experts in the particular field." *Power v. Hewlett-Packard Co.*, No. 17-cv-154, 2023 WL 2705237, at *5 (W.D. Pa. Mar. 30, 2023) (Hornak, C.J.). Further, Dr. Dhar, in detail, explains the internal testing in his expert report, providing the parties with detailed descriptions and visuals. (ECF No. 327-1 at 70–72). The applicable law, and Dr. Dhar's conclusions applying scientific principles to the data here, make sense in a practical manner, as well. On the record before the Court, there is no indication that such testing was fundamentally flawed. And there is no indication that Dr. Dhar simply "rubber stamped" Plaid's work. In short, Plaid's internal tests, and Dr. Dhar's

⁵ PNC renews these challenges to Plaid's internal studies in its Motion to Exclude Dr. Chakraborty's testimony.

review thereof are not inherently unreliable, and Plaid has sufficiently demonstrated that Dr. Dhar was within the lines in considering it.

As to fit, the visualizations in Dr. Dhar’s report of Plaid’s tests are probative. (*Id.* at 70, 72). Plaid was experimenting with different institutional selection and credentials panes for years, seeking to measure conversion rate, *i.e.*, whether users would be more inclined to enter their banking information depending on the presentation of the given user interface. These tests are squarely applicable to one of the ultimate merits issues in this case: whether consumers were more or less likely to enter their banking credentials when Plaid used PNC’s marks.

In summary, both Dr. Dhar’s likelihood of confusion and materiality opinions are admissible. PNC’s Motion as to his testimony is denied.

V. DAMAGES EXPERTS: LUNDELIUS AND CHAKRABORTY

a. Mr. Charles Lundelius

Mr. Charles Lundelius is PNC’s damages expert. Mr. Lundelius’s damages opinions are challenged by Plaid on three grounds: Plaid says that (1) his “contributed capital” analysis—the view that Plaid’s use of PNC’s marks constitutes a forced investment in Plaid by PNC—presents an issue of fit; (2) his disgorgement analysis is unreliable because it assumes that, absent the use of PNC’s marks, no PNC customers would have provided Plaid with their banking credentials; and (3) the actual damages that Mr. Lundelius claims to measure are tied to a fraud theory and not to the actual claims in this case, and therefore also present an issue of fit in this case given that PNC is pursuing only trademark infringement and related claims. Plaid is correct that Mr. Lundelius’s

contributed capital and actual damages analysis do not meet Rule 702's mark. However, Mr. Lundelius's disgorgement analysis does.⁶

First, Mr. Lundelius's contributed capital analysis will be excluded because of issues of fit and reliability. Mr. Lundelius's contributed capital analysis starts with the total number of connections that Plaid made for PNC customers from June 2015 to May 2016. (ECF No. 248 at 8). From there, he tracks Plaid's growth in total business valuation over that same period of time. He then relates the PNC consumer connections that Plaid made with fintech apps with Plaid's overall business valuation, concluding that the consumer connections that Plaid obtained as a result of PNC users linking their bank accounts to fintech apps that use Plaid is akin to a forced investment in Plaid by PNC. Then, he estimates the value PNC would have had (and would have today) if it had made an investment in Plaid in 2016 that scales both with (1) the relationships between PNC connections to overall consumers to Plaid Link and (2) Plaid's overall valuation. Mr. Lundelius concludes that PNC's forced contributed capital would have over time amounted to valuation in favor of PNC \$117.8 million. (ECF No. 326-5 at 34).

In the Court's judgment, Mr. Lundelius's "contributed capital" opinion is replete with what are essentially *ipse dixits*. By way of non-exclusive examples are the following:

(1) Mr. Lundelius relies on both user-based and non-user-based revenues in setting his baselines "because PNC users contributed non-user-based revenues to generate customer contracts and customer contracts provide for non-user-based fees," but never explains why or how or to what degree any of that is the case. (ECF No. 326-5 ¶ 43).

⁶Mr. Lundelius also opines on statutory damages. (ECF No. 326-5 at 46–47). Such will be excluded from his testimony because Mr. Lundelius does not actually calculate the total statutory damages available for recovery—he only reiterates the statutory mechanism to do so. Discussion of that topic will be handled, if applicable at the time, by the Court.

(2) Mr. Lundelius then relies on a Boston Consulting Group study of “banking fintech revenues” through 2030, yet never ties the “banking fintech” entities in that study to Plaid or to PNC, neither specifically nor by analogy, and in any event, his unexplained reliance on that study of some undefined and/or uncorrelated component of that larger industry runs counter to PNC’s argument that this case and pretty much everything about it is so “novel” that it mandates a “novel” damages theory and presents a factual context not previously encountered in trademark litigation. (*Id.* ¶ 45).⁷

(3) At paragraph 47 of his opinion, Mr. Lundelius then predicts future Plaid revenue from historical PNC customer data out to year 2030, with little explanation or analysis as to why that factor would be linear for the next eight years, even though he goes on to say that by 2030, most existing PNC users would have evaporated based on an attrition rate that he assumes will apply over that longer road, based on retrospective historical information and without any explanation as to why such would likely or certainly be the case.

(4) At paragraph 51 of his opinion, Mr. Lundelius opines that notwithstanding that his expertise lies outside of a trademark practice, “Plaid’s historical and future gross profits underestimate the full extent of value that resulted from Plaid’s alleged wrongful conduct given the timing of that conduct relative to Plaid’s life cycle as a private fintech startup.” The problem here is that Mr. Lundelius never connects those concepts one to the other beyond temporal proximity and thereby substitutes simple correlation for causation. This is further demonstrated by his statement at paragraph 54 that “PNC users contributed to the successful growth of Plaid’s key performance indicators,” [Court note: plural “indicators”] yet he never catalogues what those

⁷ While it is accurate that this is not a more run-of-the-mill, “knock-off” consumer product case, in the Court’s judgment, it is not unique relative to other trademark disputes such that an untested, one-off damages theory is appropriate.

“indicators” are, or how and in what proportion any of them are impacted (if at all) by Plaid’s actions vis-a-vis PNC’s marks.

(5) Along the same lines, at paragraph 56 of his opinion, Mr. Lundelius focuses on Plaid’s overall valuation and then connects it directly to what he describes as “PNC’s \$6 million investment in Plaid,” yet he never accounts for the existence of any other factor that may have or did influence Plaid’s valuation in any proportion (positive or negative), let alone the proportion that he relies on (gross revenue that he says was generated by PNC users as a proportion of Plaid’s overall gross revenue). In that same vein, he does not account for how any other internal or market-based factors may have impacted or even influenced Plaid’s overall business valuation. Instead, he appears to assume that all such other factors and the gross revenue he says was derived from PNC users have constant proportions no matter the scale of Plaid’s business, and that such proportions remain constant over time, without any explanation as to why that is the case here.

Considered as a whole, the Court concludes that Mr. Lundelius’s “contributed capital” opinion comes up well short of the rigorous standard directed by FRE 702 as to both fit and reliability, and it will be excluded from this case.

While the Lanham Act provides that awards for the categories of damages set out in the statute are subject to equitable principles if the profits attributable to the use of the plaintiff’s marks do not represent the full value of the plaintiff’s loss, 15 U.S.C. § 1117, Mr. Lundelius’s analysis takes that principle outside of the statutory categories and then to its most extreme. His contributed capital calculation and opinion are not demonstrably tethered to a reliable methodology that fits this case and lack support beyond Mr. Lundelius’s faith in his own calculations. Moreover, the novelty of this method, (ECF No. 298 at 8) though not a *per se* reason for exclusion, *Clinchfield*

R. Co. v. Lynch, 784 F.2d 545, 554 (4th Cir. 1986), such supports the conclusion that Mr. Lundelius's contributed capital analysis has no place in this case.

PNC never made an investment in Plaid, and the notion that the fact finder in this case should view a portion of Plaid's enhanced valuation over time as directly and proportionally attributable to the connections that Plaid made between PNC consumers and fintech apps during a one-year span in Plaid's early days in a straight-line fashion is the kind of speculative opinion, unmoored from scientific rigor, that courts are to exclude under FRE 702. *See McCauley v. PNC Fin. Servs. Grp.*, 20-cv-1493, 2024 WL 3091754, at *3 (W.D. Pa. June 21, 2024) (“Here, it appears that Mr. Minnich's opinions are based on his subjective belief and experience and, therefore, he has not demonstrated that it is more likely than not that his testimony is the product of reliable principles and methods.”).

And though PNC relies on the Lanham Act's generalized call for the consideration of equitable principles tied to the statutory damages categories in arguing for the inclusion of this component of Mr. Lundelius's opinion and testimony, that Mr. Lundelius's contributed capital analysis does not attempt to address actual damages or Plaid's profits tied to the use of PNC's marks weighs against its inclusion in this case. In essence, rather than meeting the specific measures of damages set out in the statute via the contributed capital calculations or demonstrating why the enumerated damages categories are wholly inapplicable here, PNC seeks to leapfrog over them by saying this case is “novel,” and inject into the case a damages theory that does not in the Court’s judgment rest on the necessary measure of fit to this case, let alone a reliable methodology tied to the statutory text.⁸

⁸ Several courts have acknowledged that in the rarer case, a calculation of Lanham Act damages based on a reasonable royalty using the hypothetical negotiation process may be permitted where the tri-partite damages measures set out in

There is simply insufficient proof that Mr. Lundelius's opinion is based on a replicable, recognized, and/or sound analytical processes to allow its admission in this case. It appears that this method has never been used to calculate trademark infringement damages in any case, has no professional or academic recognition, and has not been the subject of any level of peer review. (ECF No. 326-5 ¶¶ 51–63 (containing no record citations to sources approving of or adopting the contributed capital analysis); ECF No. 248 at 11; ECF No 298 at 8). The contributed capital portion of Mr. Lundelius's opinion testimony is excluded, in whole.

Mr. Lundelius's disgorgement opinion does not share the same flaws. Plaid argues that it is inadmissible because that opinion assumes 100% of PNC "conversions" are attributable to Plaid's use of PNC's marks. (ECF No. 248 at 14).

PNC in turn argues that the burden shifting framework of lost profit analysis under the Lanham Act requires that Mr. Lundelius's opinion on disgorgement be admitted:

Thus, regarding profit disgorgement, the plaintiff's only burden is to prove the infringer's revenues, and the infringer bears the burden of proving "all elements of cost or deduction." 15 U.S.C. § 1117(a). The infringer has the burden to "isolate the profits which are attributable to the use of the infringing mark."

Am. Eagle Outfitters, Inc. v. Walmart, Inc., No. 20-cv-00412, 2023 WL 1778786, at *3 (W.D. Pa. Feb. 6, 2023) (quoting *Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co.*, 316 U.S. 203, 206–07 (1942)). In essence, PNC says that because the burden ultimately rests with Plaid to

the text of the Lanham Act are not adequate, applying the standards crafted for patent cases in *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), modified 446 F.2d 29 (2d Cir. 1971), cert denied 404 U.S. 870 (1971). See *Sands, Taylor & Wood v. Quaker Oats Co.*, 34 F.3d 1340, 1344–45 (7th Cir. 1994) (*Sands II*); *Sands, Taylor & Wood v. Quaker Oats Co.*, 978 F.2d 947, 962–63 (7th Cir. 1992) (*Sands I*); *Fortinet, Inc. v. Fortanix, Inc.*, No. 20-cv-06900, 2022 WL 1128723, at *11 (N.D. Cal. Apr. 15, 2022); *ITT Corp. v. Xylem Grp., LLC*, 963 F. Supp. 2d 1309 (N.D. Ga. 2013). Unlike Mr. Lundelius's contributed capital approach, the reasonable royalty methodology has a lengthy heritage of application in federal intellectual property litigation. But see David Nimmer, *Investigating the "Reasonable Royalty" for Copyright Infringement*, 99 B.U. L. Rev. 1 (2019) (criticizing use of reasonable royalty damage calculations in copyright cases as falling outside of the enumerated statutory damages categories and analyzing the implications of *Deltak, Inc. v. Advanced Sys., Inc.*, 767 F.2d 357, 364 (7th Cir. 1985)).

distinguish revenue it gained from its use of PNC's marks from costs and deductions, Mr. Lundelius's opinion on disgorgement is admissible, notwithstanding that such opinion does not factor in Plaid's costs or deductions.

PNC is correct on this point. The plaintiff in a trademark case need only prove the infringer's revenues. *Newborn Bros. Co. v. Albion Eng'g Co.*, No. 12-cv-2999, 2024 WL 887785, at *3 (D.N.J. Feb. 29, 2024). Mr. Lundelius is not required to put in evidence regarding the "net" measure of PNC's profits—under the Lanham Act, he need only focus on revenue, and his disgorgement opinion does that. Therefore, Plaid's arguments calling for the exclusion of this opinion, which relate in some way to Mr. Lundelius's failure to include certain Plaid costs in his lost profits analysis, fall short. Mr. Lundelius's testimony as to his disgorgement opinion meets the FRE 702 test.

Mr. Lundelius also advances an actual damages opinion, which is discussed in Section VII(a), below.

b. Dr. Maureen Chakraborty

Dr. Maureen Chakraborty is Plaid's damages expert. Dr. Chakraborty was hired to rebut Mr. Lundelius's testimony. (ECF No. 327-4 at 6). PNC argues that (1) Dr. Chakraborty merely adopted Plaid's internal tests regarding damages, which presents issues of fit and reliability, (2) Dr. Chakraborty is not qualified to evaluate the reliability of Plaid's internal tests because she is trained in economics, not survey design, and (3) Dr. Chakraborty's testimony invades the province of the fact finder in setting the "proper" scope of damages.

As set forth above, Plaid ran internal conversion studies to determine whether the inclusion of bank marks (such as PNC's) on its Plaid Link user interface had an effect on conversion

(whether consumers were more or less likely to link their bank account to a fintech app via Plaid Link). These studies are now advanced by Plaid to cut back on Mr. Lundelius’s damages analysis (and Dr. Kivetz’s likelihood of confusion opinion) in that these studies show that if PNC’s marks had not been displayed in the Plaid Link user interface, conversion would have decreased by 1-4.7%. (ECF No. 327-4 ¶ 42). “In other words,” PNC customers using Plaid Link to connect their bank account to a fintech app “would still have connected their PNC account . . . 95 percent to 99 percent of the time,” regardless of whether PNC’s marks were displayed.⁹ (*Id.*). A later internal conversion study found the decline in conversion, where bank marks were not displayed to users, to be 4.7%. (*Id.* ¶ 50 n.100). Dr. Chakraborty then uses a more conservative decline in conversion rate of 5%, a figure greater than either of the rates documented by the two Plaid conversion studies, to reduce the amount of damages Dr. Lundelius specified in his disgorgement opinion by 95%. (*Id.* ¶ 51). In response, PNC says that Dr. Chakraborty merely adopted the results from Plaid’s tests and that Plaid’s tests do not fit this case.

Experts are permitted to rely upon studies that they did not conduct. FRE 703 (“An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed.”). In *In re Payment Card Interchange Fee and Merchant Discount Antitrust Litigation*, the plaintiffs challenged expert testimony that was based on survey data and that purportedly failed to fit the facts of the case. 638 F. Supp. 3d 227, 284–85 (E.D.N.Y. 2022). The Court declined to exclude the expert’s testimony despite the reality that the expert did not cite to surveys examining “the but-for world.” *Id.* at 285. The court viewed the expert’s reliance on general survey data and academic literature as sufficient. *Id.* The court also concluded that the plaintiffs’ contention that the survey data were unreliable was a credibility determination best

⁹ Given these percentages, one might then wonder why the marks were even used in the first place.

reserved for cross examination at trial. *Id.* at 286 (“The Court concludes that they may cross-examine Professor Kahn about the reliability of the surveys at trial, but that the surveys are not so ‘unrealistic and contradictory’ as to preclude admissibility.”) (citation omitted).

Here, the studies that Dr. Chakraborty relied upon go beyond the general surveys relied on in *In Re Payment Card Interchange*; the studies measure the materiality of Plaid’s use of PNC’s marks, and that materiality goes to the heart of this case. In other words, there are no issues of fit. Indeed, as Dr. Chakraborty notes, even one of PNC’s experts remarked that it was a good idea to measure consumer conversion. (ECF No. 327-4 at 24 n.76 (“[I]t would have been a good experiment to see how many people actually entered their credentials and usernames and passwords if they -- if they didn’t have the bank logos. I think that would have been a good experiment at the time for Plaid.”)).

As to whether Dr. Chakraborty “parroted” the results from Plaid’s internal surveys, it is true that courts view an expert’s reliance on the internal data of one of the parties more skeptically. See *Forte v. Liquidnet Holdings, Inc.*, 675 F. App’x 21, 24 (2d Cir. 2017); *Montgomery Cnty. v. Microvote Corp.*, 320 F.3d 440, 448–49 (3d Cir. 2003). Unlike in those cases, particularly *Microvote*, Chakraborty did not merely parrot the data. Dr. Chakraborty explained the mechanisms for the studies (ECF No. 327-4 at 26 n.82), expanded on the meaning of the survey’s findings in ways that might not necessarily be obvious to the average person or juror (*id.* ¶ 42), distinguished between differences in “credential entering” and “conversion” (*id.* ¶ 43) and explained how the results presented from the studies were in line with the growing proliferation of fintech apps. (*Id.* ¶ 47–48). Thus, while Dr. Chakraborty may not have been the one to originally conduct these studies, this does not appear to be a case in which Plaid retained an expert simply to serve as its mouthpiece.

As to PNC’s argument that Dr. Chakraborty’s “rounding up” from 4.7% to 5%, the Court notes that rounding up *favors* PNC. That is, if Dr. Chakraborty applied the actual conversion rates from the internal Plaid studies (4.7%), Mr. Lundelius’s disgorgement analysis would be reduced by an even greater amount. Regardless, the Court views Dr. Chakraborty’s “rounding up” as taking a more cautious approach to the maximum 4.7% reduction in conversion figure. Such is not impermissible speculation.

PNC’s remaining arguments come up wanting. Dr. Chakraborty is qualified to give testimony of this sort. (ECF No. 327-4 ¶ 5 (“I have an extensive background in economics, finance, accounting, and valuation. I have served as an expert witness and as a consultant in a variety of matters, including those involving economic damages and valuation.”); ECF No. 295 at 15 n. 5 (“[A]s part of my background and training, you know, I would consider myself experienced in statistical analyses and data analyses.”)). It is not as if Dr. Chakraborty were unfamiliar with surveys and survey interpretation, and while Plaid concedes that Dr. Chakraborty is not an expert on survey design, it is undisputed that Dr. Chakraborty did not design the surveys at issue. Instead, she gauged the surveys’ relevance to the potential scope of damages for the at issue claims in this case. PNC’s criticisms about Dr. Chakraborty’s inexperience with survey design are best reserved for cross examination at trial.

Finally, Dr. Chakraborty’s testimony does not invade the province of the Court. PNC reads some of Dr. Chakraborty’s testimony as suggesting what the “proper evaluation” of damages is in a Lanham Act case. (ECF No. 327-5 ¶ 35). This argument is contrary to the record: “I don’t think I’m testifying on the standard of unjust enrichment. I’m giving you my opinion of how economically one would calculate damages if the goal is to estimate the amount of profit that the defendant earned due to the alleged misconduct[.]” (ECF No. 295 at 17 n.7). Dr. Chakraborty’s

damages opinion does not attempt to define the law applicable to the case; her opinion factors in the costs that defendants are allowed to deduct under the Lanham Act. 15 U.S.C. § 1117(a). The Lanham Act clearly allows for consideration of revenue and costs and allocates the burden of each party as to them and allocating each party's split of the responsibility for proof. Accordingly, Dr. Chakraborty does not attempt to define the law of the case.¹⁰

VI. MARKETING EXPERTS: CARPENTER AND HANSENS

a. Dr. Gregory S. Carpenter

Dr. Gregory S. Carpenter is PNC's marketing expert. His report evaluates the effect of Plaid's usage of PNC's marks on PNC's brand. (ECF No. 326-4 at 7–8). He opines that Plaid benefited from the usage of PNC's marks and that Plaid's usage of PNC's marks harmed PNC's brand. (*Id.*). Dr. Carpenter's report purports to demonstrate how PNC built its brand, how it continues to invest in its brand, how valuable its brand is, how Plaid utilized PNC's brand (and the brands of other banks), and how that usage impacted PNC's brand.

Plaid's objections to Dr. Carpenter's testimony fall into three main buckets: Plaid says that (1) reliance on bad press and consumer complaints to draw conclusions about brand harm is unreliable; (2) reliance on generic marketing principles, without a more thorough analysis, to draw conclusions about the benefit Plaid gained from using PNC's marks is unreliable; and (3) Dr.

¹⁰ To the extent PNC argues that Dr. Chakraborty's disgorgement opinion may confuse the jury, disgorgement of profits is an equitable remedy that is determined by the judge, not by a jury. *Hard Candy, LLC v. Anastasia Beverly Hills, Inc.*, 921 F.3d 1343, 1352 (11th Cir. 2019); see also *TrueNorth Companies, LC v. TruNorth Warranty Plans of N. Am., LLC*, 2019 WL 8301690, at *4 (N.D. Iowa June 3, 2019) (“I find the disgorgement of profits remedy in a trademark action to be a historically equitable one. . . . [A] trademark plaintiff seeking disgorgement of profits is not entitled to a jury trial.”).

Carpenter's failure to quantify the amount of damages in this case warrants exclusion, as his opinions, without a quantitative finding, do not help the trier of fact.

Only Dr. Carpenter's opinion regarding the general risk of harm to PNC's brand via Plaid's usage of PNC's marks will be excluded. (ECF No. 326-4 ¶¶ 117–22).

Plaid's objections regarding Dr. Carpenter's analysis of "bad press" that allegedly came about via Plaid's "nuclear messaging" (*id.* ¶ 123) and Dr. Carpenter's usage of a qualitative methodology are unpersuasive. There is no requirement that an expert engage in a quantitative analysis for their opinion to be admissible. *Lontex Corp. v. Nike, Inc.*, No. 18-cv-5623, 2021 WL 1145904, at *11 (E.D. Pa. Mar. 25, 2021) ("The Third Circuit has not imposed the strict quantitative analysis requirement that Lontex suggests.").

And reliance on an expert's own knowledge of principles applicable to the issues before the Court in delivering an opinion is permissible, especially in the context of marketing. *In re: Tylenol (Acetaminophen) Mktg., Sales Pracs. & Prod. Liab. Litig.*, No. MDL 2436, 2016 WL 807377, at *5 (E.D. Pa. Mar. 2, 2016) ("A marketing professional's review and analysis of company documents to extrapolate marketing strategies, coupled with the expert's experience and background may be enough to establish that the expert's methodology is reliable.") (collecting cases); *United States ex rel. Penelow v. Janssen Prod., LP*, No. 12-cv-7758, 2022 WL 94535, at *7 (D.N.J. Jan. 10, 2022) (citing with approval another court's decision that concluded that an expert's reliance on an "understanding of the drug marketplace and how marketing campaigns generally influence doctors" was enough to satisfy FRE 702).

Here, Dr. Carpenter’s report reflects the application of recognized marketing principles to Plaid’s internal documents and publicly stated objectives. (E.g., ECF No. 326-4 ¶¶ 114, 124 n. 133, 125 n. 135). For these purposes, that is enough to indicate reliability.¹¹

Plaid’s arguments regarding Dr. Carpenter’s measure of damages, or perhaps more accurately, the lack thereof, are similar to its other arguments. According to Plaid, Dr. Carpenter’s failure to quantify the amount of harm that PNC suffered through Plaid’s use of its trademarks renders Dr. Carpenter’s testimony on this topic inadmissible. (ECF No. 254 at 16). This argument misreads Dr. Carpenter’s testimony. He is not testifying about the scope of the harm to PNC’s brand—and Plaid itself seems to recognize this by pointing to a statement from Dr. Carpenter’s deposition. (*Id.*). Rather, Dr. Carpenter is testifying as to liability—he is saying that Plaid’s use of PNC’s marks did harm PNC, and such is material here given that PNC has advanced claims that have as an element whether there is a likelihood of injury to the plaintiff in the form of loss of good will. *Warner-Lambert Co. v. Breathasure, Inc.*, 204 F.3d 87, 92 (3d Cir. 2000). Therefore, this argument fails, as well.

That all said, one aspect of Dr. Carpenter’s testimony is problematic. In Section VII(b) of his report, Dr. Carpenter opines that “Plaid Placed PNC’s Brand at Risk.” (ECF No. 326-4 ¶¶ 117–22). The gist of this opinion is that Plaid’s usage of PNC’s marks, in and of itself, placed PNC’s brand at risk. The issue with this opinion is most apparent in paragraph 117 of Dr. Carpenter’s report: “Plaid’s use of the PNC Branding means that PNC’s fortunes become tied in some measure to the actions of Plaid. Both PNC and Plaid used the PNC Branding to interact with consumers. *As a result, one of PNC’s valuable assets, its brand, was placed at considerable risk.*” (*Id.* ¶ 117

¹¹ Dr. Carpenter’s report makes allusions to the 2019 Cybersecurity Event. (ECF No. 326 ¶ 123). Specifically, he opines that Plaid’s use of PNC’s marks harmed PNC’s brand because of the Cybersecurity Event. (*Id.*). The Court discusses that portion of Dr. Carpenter’s report in Section VII(a), below.

(emphasis added)). That alone is not enough to satisfy FRE 702's reliability requirement; for this statement to be admissible, there must be some indicia of *how* Plaid's usage of PNC's marks, in and of itself, placed PNC's brand at risk. Although both the Cybersecurity Event and the "nuclear" messaging are referenced in Section VII(b) of Dr. Carpenter's report, that report does not show how and why PNC's brand suffered by virtue of Plaid's use of its marks alone.

The assertion that Plaid automatically placed PNC's brand at risk in some undefined fashion simply by using PNC's marks constitutes impermissible speculation rather than expert analysis. Beyond that, it also appears to the Court to be nothing more than an argumentative truism, akin to saying that a person lending her car to another necessarily places all of the assets of the lender at risk in the event the loaned car becomes involved in an accident. Adding the patina of an expert opinion to such a truism does not aid the finder of fact and is therefore unnecessary, as that is an argument that PNC can make without relying on expert testimony. Under FRE 702, PNC has not met its burden in demonstrating the reliability of this particular opinion. This specific aspect of Dr. Carpenter's testimony—that Plaid's use of PNC's marks inherently placed PNC's brand at considerable risk—is therefore excluded.

b. Dr. Dominique Hanssens

Dr. Dominique Hanssens is Plaid's marketing expert. His testimony serves to rebut the testimony of Dr. Kivetz, Mr. Lundelius, and Dr. Carpenter. (ECF No. 292 at 5; ECF No. 327-2 ¶ 11). In so doing, Dr. Hanssens, like Dr. Carpenter, did not design his own study. Instead, he relies on his own experience and knowledge of marketing and economic principles to rebut the analyses offered by PNC's experts. (*Id.* ¶ 12).

The crux of PNC's argument is that Dr. Hanssens's work is not really his, and consequently, his opinions are unreliable and inadmissible. PNC's objection is overruled.

“Where [an] expert [i]s directly involved with the research, analysis or drafting of the report, even with substantial assistance from a colleague or associate, his involvement in and knowledge of the report are matters of weight, not admissibility.” *Shire Viropharma Inc. v. CSL Behring LLC*, No. 17-cv-414, 2021 WL 1227097, at *21 n.13 (D. Del. Mar. 31, 2021) (citation omitted). Where a challenge is raised against an expert report on the basis of authorship, the issue is whether the expert witness “offered substantial input into what was put into the report.” *Crowley v. Chait*, 322 F. Supp. 2d 530, 544 (D.N.J. 2004). In *In re Asbestos Products Liability Litigation*, the Court admitted an expert report even though the expert in question testified that he “did not write his supplemental report.” 714 F. Supp. 2d 535, 542 (E.D. Pa. 2010). And though *In re Asbestos* concerned attorney assistance in the drafting of an expert report, courts evaluating the impact of a research team helping experts have reached similar conclusions. *See Strictly F/X L.L.C. v. Pyrotecnico F/X, L.L.C.*, No. 20-cv-00201, 2022 WL 2343309, at *3 (W.D. Pa. June 29, 2022) (“The Court will not exclude Mr. Connolly's testimony based on the fact that he worked with his team members during the investigation.”) (citations omitted); *Lee Valley Tools, Ltd. v. Indus. Blade Co.*, 288 F.R.D. 254, 266 (W.D.N.Y. 2013)) (“Where the expert was directly involved with the research, analysis or drafting of the report, even with substantial assistance from a colleague or associate, his involvement in and knowledge of the report are matters of weight, not admissibility.”).

Here, Dr. Hanssens explicitly stated that the staff at Cornerstone Research “worked under [his] direction.” (ECF No. 327-2 ¶ 13). Dr. Hanssens also testified that, although he received assistance from his team, “he is the sole author of this report.” (ECF No. 292 at 12 n.1 (citing to

Dr. Hanssens's deposition)). The record here does not lead to the conclusion that Dr. Hanssens outsourced his expert report. Dr. Hanssens relied on support staff to help him, just like other experts in this case.¹² His support staff did not usurp the authorship of his report. Given that Dr. Hanssens was the stated author of his report, the natural consequence of endorsing PNC's arguments on this point would mean that experts would no longer be able to rely on support staff, and that proposition has no basis in law. *See, e.g., Dura Auto. Sys. of Ind., Inc. v. CTS Corp.*, 285 F.3d 609, 612 (7th Cir. 2002) ("An expert witness is permitted to use assistants in formulating his expert opinion[.]"); *Zollicoffer v. Gold Standard Baking, Inc.*, 335 F.R.D. 126, 150 (N.D. Ill. 2020) ("Experts can rely on assistants to formulate an opinion.").

The cases that PNC relies upon largely concern the effect of experts relying on the testimony of *other experts*, not the background work of their support staff. *See e.g., In re TMI Litig.*, 193 F.3d at 715–16. That situation is not comparable to the one currently before the Court.

To the extent that PNC argues that Dr. Hanssens should have engaged in a quantitative analysis rather than a qualitative rebuttal of its experts' arguments, Plaid could make the same point about Dr. Carpenter's report, and the law demonstrating that Dr. Carpenter's methodology is reliable applies with full force to Dr. Hanssens's methodology. Therefore, PNC's Motion to Exclude Dr. Hanssens's testimony is denied.

¹² For instance, four of PNC's five expert reports relied on the contributions of support staff. (ECF No. 326-1 at 9 n.4 ("I received assistance research assistance from support staff at my direction and guidance."); ECF No. 326-2 at 7 n.8 (same); ECF No. 326-3 ¶ 11 (stating the hourly billing rate of supporting staff); ECF No. 326-5 ¶ 7 ("BRG staff have assisted me on this matter.")). In fairness to PNC's position in this regard, at the *Daubert* hearing, PNC's counsel confirmed that the crux of PNC's argument went to the magnitude of the involvement of staff in supporting Dr. Hanssens, beyond the fact of that support.

VII. CYBERSECURITY EXPERTS: RENNER AND CHAN

a. Mr. Todd Renner (and the Associated Portions of Mr. Lundelius's and Dr. Carpenter's Reports).

PNC advances proposed expert testimony on Plaid's cybersecurity actions in support of its "seeking as part of its damages out-of-pocket costs incurred from fraud on PNC customers that used Plaid Link." (ECF No. 299 at 2).

At paragraphs 64–72 of his report, most specifically at paragraphs 65, 70 and 72, Mr. Lundelius opines on the expenses PNC claims to have incurred via investigation/remediation efforts it undertook relative to the 2019 Cybersecurity Event. In doing so, he, like Mr. Renner and Dr. Carpenter, points to the fact that as part of Plaid's operation of Plaid Link, it retained/stored PNC customer authentication information, and then allegedly used that retained customer information to "auto populate" security challenge questions for PNC customers using Plaid Link to connect to fintech apps. Then, according to PNC, malign actors on the Dark Web intercepted and then used that information to access PNC customer accounts, causing a harmful impact that PNC was required to investigate and then remediate. Dr. Carpenter opines that the Cybersecurity Event harmed PNC's brand. (ECF No. 326-4 ¶ 123). Importantly, paragraphs 48–56 and 91 of Mr. Renner's report, especially paragraphs 55 and 91, focus on the alleged "auto population" from retained data by Plaid, without differentiation between the role of those actions and the mere use of PNC's marks on the fact of, and magnitude, of the 2019 Cybersecurity Event.

Even assuming those opinions of Messrs. Lundelius, Carpenter, and Renner are accurate, the problem with their proffered opinions is that they do not delineate with any meaningful precision the connection between the alleged use by Plaid of PNC's marks (the basis of this

trademark case) and the fact of alleged out-of-pocket harm to PNC.¹³ More precisely, the record in the case demonstrates that at least some meaningful portion of PNC customers would have used Plaid Link even without visibility of PNC marks. After all, Dr. Kivetz’s “likelihood of confusion” opinion recites that based on his survey, even in the control group that was exposed to a more toned-down version of Plaid Link, 38% tied it to PNC in some way. As a result, the assumption inherent in all three experts’ opinions pertaining to the Cybersecurity Event that all of PNC’s out-of-pocket investigation/brand repair/remediation expenses flowed from Plaid’s use of PNC’s marks runs counter to Dr. Kivetz’s opined reality.

Further, in both Mr. Lundelius’s and Mr. Renner’s opinions, the critical actions of Plaid that were the central causal link between a PNC customer using Plaid Link to connect to a fintech app and their banking credentials being present on the Dark Web and allegedly ripe for the pickings by malign actors was what they identify as Plaid’s practice of storing PNC customer data and then, critically, “auto populating” the “challenge question” authentication credentials that a PNC customer previously entered into the Plaid Link screens.

Assuming that to be true, that conduct by Plaid is not sufficiently tied to the trademark claims in this case. More specifically, neither opinion makes a distinction between any harm to PNC for investigation/remediation expenses and the use of its marks, as opposed to Plaid’s alleged data storage/auto population actions. The removal of either of these latter actions would have necessarily impacted (if not completely negated) the fact of any such harm and its amount. Yet both opinions necessarily intermingle such causative factors, *e.g.*, the use of the marks with the

¹³ There are no claims in the case on behalf of PNC customers.

storage/auto population actions, and the latter set of actions is not the basis of any claims actually asserted in this case.

To the extent the point of either opinion is that per Dr. Kivetz's likelihood of confusion conclusions, the use of PNC's marks may have increased the number of PNC customers who engaged with the Plaid Link interface to connect to their chosen fintech app, which may have later caused more PNC customer data to appear on the Dark Web, which then caused more harm to PNC, such is not quantified by either Mr. Lundelius or Mr. Renner. In fact, their opinions do not seek to draw any differentiation as to the magnitude of the "delta" between PNC customers who did connect their accounts because of the presence of the marks and those that would have connected their accounts regardless of the presence of PNC's marks. Nor do Mr. Lundelius and Mr. Renner parse out whether, and if so to what degree, the out-of-pocket harm for which PNC seeks recompense would have, or would not have, occurred but for the data storage/auto population activity Plaid allegedly engaged in. They merely state that the existence of the harm is exacerbated by Plaid's data storage and auto population practices, but critically, these practices are plainly causally distinct conduct from the alleged infringing use by Plaid of PNC's marks.

Similarly, Dr. Carpenter does not even opine on the mechanisms via which the Cybersecurity Event harmed PNC at all—he merely states that it did. And while Dr. Carpenter's later analysis regarding Plaid's messaging screens directing PNC customers to file complaints with the CFPB is relevant to the False Advertising claim in this action, the preceding opinion, that the

Cybersecurity Event harmed PNC's brand, does not "fit" the case and is not sufficiently analyzed so as to satisfy FRE 702's reliability requirement.¹⁴

The Court concludes that the testimony of Mr. Lundelius on the topic of actual damages stemming from out-of-pocket investigation/remediation expenses, the opinion testimony from Dr. Carpenter stating that the Cybersecurity Event harmed PNC's brand, and all of the opinion testimony of Mr. Renner will be excluded on the basis that such do not "fit" the case actually before the Court and are more the product of expert say-so rather than reproducible methods. But this ruling comes with a caveat—to the extent Plaid at trial relies on its own cybersecurity processes or calls into question those of PNC, expressly or implicitly/inferentially, then the Court may revisit its ruling as to Mr. Renner's opinion testimony to the extent he would opine on the mechanics of how authentication credentials operate generally and any vulnerabilities such would foster. And this could then lead to reconsideration of the exclusion below of Mr. Chan's testimony.

There are additional caveats to this ruling. First, PNC alleges that a purpose of Plaid's in using PNC's marks was to add value to its business by increasing the amount of stored consumer banking data it held. PNC will be permitted to advance lay witness testimony that it says demonstrates that Plaid's true purpose in using PNC's marks was not to ease consumer use in connecting to fintech apps but was instead to increase Plaid's data repository of consumer banking information for its own purposes. Second, the record also reflects that there came a time in 2019 when PNC made an affirmative decision to alter its relationship with Plaid, and Plaid then made the decision to target PNC customers with messaging screens when PNC elected to alter the mechanisms by which PNC customers accessed fintech apps via Plaid Link. Consequently, PNC

¹⁴ The Court's conclusion in all of these regards is reached even before considering the significant FRE 403 issues likely involved in discussion of the Cybersecurity Event, especially relative to Mr. Renner's comparison of Plaid to "cybercriminals."

will be permitted via lay witnesses to state generally what motivated it to alter how it dealt with Plaid, and how/why its limitations on PNC customer access to fintech apps via Plaid Link came to be. In the Court's judgment, such testimony would be relevant to the "intent" factors germane to several of PNC's claims.

In short, lay witnesses will be permitted to testify as to facts pertaining to Plaid's alleged intent in its use of PNC's marks, the historical facts as to why PNC and Plaid made the decisions that they did as to their relationship, PNC's actions as to how it changed the mode of access by PNC customers to fintech apps via Plaid, Plaid's decision to take what one of its witnesses called the "nuclear option" with its messaging screens, and PNC's asserted damages resulting from the publication of those "nuclear" messaging screens. Lay or expert testimony as to who caused/did not cause the 2019 Cybersecurity Event, and the details "under the hood" and/or explanations of that Event, will not be permitted, as such would readily lead to substantial jury confusion in light of the actual claims/defenses in this case and would likely generate substantial undue prejudice that eclipses any probative value under FRE 403.

In summary, the portion of the testimony of Mr. Lundelius and Dr. Carpenter pertaining to the harm that PNC allegedly suffered from the 2019 Cybersecurity Event is excluded, and the testimony of Mr. Renner is excluded in full.

b. Mr. Jason Chan

Plaid's cybersecurity expert, Jason Chan, was hired to rebut Mr. Renner's testimony. Plaid says that if Mr. Renner's testimony is excluded, it will not call Mr. Chan to testify. (ECF No. 262 at 6 n.2). Either way, because Mr. Chan's testimony necessarily covers the same topics that Mr.

Renner opines on, Mr. Chan's testimony is excluded for the same reasons supporting the exclusion of Mr. Renner's testimony.

VIII. CONCLUSION

In summary, the Court rules as follows:

- Plaid's Motion to Exclude Dr. Kivetz is granted in part and denied in part. Dr. Kivetz's likelihood of confusion opinion is admissible, but his tarnishment opinion is inadmissible.
- PNC's Motion to Exclude Dr. Dhar is denied in full.
- Plaid's Motion to Exclude Mr. Lundelius is granted in part and denied in part. Mr. Lundelius's contributed capital, actual damages, and statutory damages analyses are inadmissible. Mr. Lundelius's disgorgement analysis is admissible.
- PNC's Motion to Exclude Dr. Chakraborty is denied in full.
- Plaid's Motion to Exclude Dr. Carpenter is granted in part, as to Dr. Carpenter's opinion stating that Plaid's use of PNC's marks inherently placed PNC's brand at risk and his opinion pertaining to PNC's remediation after the 2019 Cybersecurity Event. The balance of Plaid's Motion is denied.
- PNC's Motion to Exclude Dr. Hanssens is denied in full.
- Plaid's Motion to Exclude Mr. Renner is granted in full.
- PNC's Motion to Exclude Mr. Chan is granted in full.

s/ Mark R. Hornak
Mark R. Hornak
Chief United States District Judge

Dated: August 7, 2024